Bonneville Power Administration

Raymond-Cosmopolis Transmission Line Rebuild Project

Finding of No Significant Impact

August 2003

DEPARTMENT OF ENERGY
Bonneville Power Administration

Raymond–Cosmopolis Transmission Line Rebuild Project

Finding of No Significant Impact (FONSI)
and Floodplain Statement of Findings

Summary: Bonneville Power Administration (BPA) proposes to rebuild the Raymond–Cosmopolis transmission line (Proposed Action) and add fiber optic cable to the line. The 18.3-mile-long transmission line is located in Pacific and Grays Harbor Counties in Washington. BPA would replace the existing single-circuit 115-kilovolt (kV) line with a new 115-kV line. The existing line supplies power to the Raymond area. The transmission line needs to be rebuilt to improve reliability, to address safety concerns, and to replace the structures which are old and deteriorating.

BPA prepared a Final Environmental Assessment (U.S. Department of Energy, EA-1425, August 2003) to determine if the Proposed Action would cause significant effects that would warrant preparing an Environmental Impact Statement (EIS). Based on the analysis in the EA and the mitigation that will be implemented to reduce adverse impacts, BPA has determined that the Proposed Action is not a major Federal action significantly affecting the quality of the human environment, within the meaning of the National Environmental Policy Act (NEPA) of 1969.

Therefore, the preparation of an EIS is not required and BPA is issuing this Finding of No Significant Impact (FONSI) for the Proposed Action. This FONSI is based on the attached Final EA, as summarized in this FONSI. The required mitigation is detailed in a Mitigation Action Plan (MAP) for this project, which lists all measures, components of each measure, who is responsible for each component, and the schedule. The MAP is in Appendix D of the Final EA.

The comments received on the Preliminary EA and responses to the comments are in Chapter 8. Major changes to the Preliminary EA, due to comments and any refinements or changes in the project, are underlined (text additions) or struck through (deleted text). Editorial changes are not marked.

A Floodplain Statement of Findings is also included in this FONSI. Impacts to floodplains and wetlands will be avoided where possible and minimized where there is no practicable alternative.

Copies: For copies of this EA/FONSI, please call BPA's toll-free document request line: 1-888-276-7790. The documents are also available at two BPA websites, either the Environment, Fish & Wildlife web site, http://www.efw.bpa.gov/cgi-bin/PSA/NEPA/SUMMARIES/RaymondCosmopolis, or the Transmission Business Line web site, http://www2.transmission.bpa.gov/PlanProj/Transmission_Projects/.

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- Toll-free at 1-888-282-3713 and ask to connect with either Mr. Beck or Ms. St.Hilaire

Supplementary Information: BPA currently owns, operates, and maintains the existing Raymond–Cosmopolis No. 1 115-kV transmission line, which is an 18.3-mile-long transmission line located in Pacific and Grays Harbor Counties, Washington. BPA needs to take action because this transmission line is old, physically worn, and structurally unsound in places. The line's condition creates risks to public and worker safety and to reliable electrical service.

Two alternatives were identified and analyzed: the Proposed Action and the No Action Alternative. The No Action Alternative assumed that BPA would not rebuild the Raymond–Cosmopolis No. 1 transmission line and would continue to operate and maintain the existing transmission line. The Proposed Action alternative is to rebuild the transmission line in the existing right-of-way except for some short segments that would be realigned to avoid wetlands and to minimize impacts to waterways. The proposed schedule is to rebuild the line in the spring through fall of 2004. Details of the Proposed Action are presented in Chapter 2 of the EA.

To determine whether the proposed action has the potential to cause significant environmental effects, the potential impact of each alternative on human and natural resources were evaluated. This impact analysis is in Chapter 3 of the EA and is summarized below. To evaluate potential impacts from construction, operation, and maintenance activities, four impact levels were used—high, moderate, low, and no impact, defined in Appendix A of the EA for each resource area. These impact levels are based on the considerations of context and intensity defined in Council of Environmental Quality (CEQ) regulations (40 CFR 1508.27). High impacts are significant impacts, while moderate and low impacts are not. Cumulative effects of the proposal, when combined with impacts from past, present, and/or foreseeable future projects in the area, were also evaluated in Chapter 3 of the EA.

The impact evaluation in Chapter 3 includes mitigation that is required. A detailed MAP was developed to list components of each measure, responsible parties, and the implementation schedule (Appendix D of the EA). The MAP includes measures to reduce impacts even when they are not considered significant. The following discussion provides a summary of the Proposed Action's potential impacts and the reasons these impacts would not be significant.

Land Use. Impacts to land use will result from the following activities along the corridor:

- Cutting trees on approximately 13 acres of forest managed for timber production and the withdrawal of approximately 10 acres from timber production will be a low impact because less than 0.1% of the county's timber base will be affected.
- Widening 1,300 feet of existing easement to accommodate swing in the conductor will further restrict uses, but this will be a low impact because of the minimal restrictions and the rural nature of the area restricted.
- Construction impacts on recreation at Butte Creek Picnic Area could be moderate because there is the potential for frequent interference with recreational users. Construction impacts on the Highland Public Golf Course will be a low impact because activities will interfere with access for a short time.
- Construction impacts to traffic flow will be short term and moderate, partially mitigated by the use of traffic safety signs and flaggers to manage traffic and the posting of a notice and schedule of activities on the Washington State Department of Transportation (WSDOT) Traffic Advisory website.
- Disruption of residential use will result from temporary traffic delays on Highway 101, some disturbance of vegetation in yards, and from dust and noise. This will be a low to moderate impact because the disturbance will be short term, landowners will be informed of project

schedules, construction equipment will be kept clear of residential driveways as much as possible, and disturbed areas will be restored.

- Operation and maintenance activities will have a low impact on land use because maintenance vehicles and activities will not disrupt the flow of traffic and will have very little impact on forestry, recreational use, or residents.

Geology and Soils. Impacts on soils, including increases in erosion and run-off, could result from clearing of vegetation and grading. Soil may be compacted by heavy equipment. Impacts will be minimized through implementation of Best Management Practices (BMPs) and a Stormwater Pollution Prevention (SWPP) Plan, which will address measures to reduce erosion and runoff and stabilize disturbed areas. The following impacts to geology and soils could result from project activities:

- Removal of existing structures and construction of new structures will result in low to moderate impacts because effects would be localized to structure locations and erosion control measures would be implemented.
- The removal of trees within and adjacent to the right-of-way, during construction and during subsequent vegetation management, will result in low to moderate impacts because of the small area affected by tree removal.
- The impact from road construction and improvements is expected to be low to moderate because erosion control measures will be implemented and only a few short lengths of road are to be improved in areas of steep slopes.
- In most cases, operation and maintenance would have a low impact on soils because the areas affected would be small, confined to the area of a particular maintenance action, and dispersed both in time and along the length of the corridor.

Vegetation. Impacts on vegetation would result from clearing and crushing of vegetation, damage to plant roots from compaction of soils by heavy equipment, soil disturbance, and weed invasion or spread. Impacts would be permanent where vegetated areas are converted to road surfaces or structure bases, but most impacts would be temporary because the vegetation in disturbed areas tends to recover quickly due to the mild, wet climate. The following impacts to vegetation could result from the following project activities:

- Construction of new structures and removal of existing structures could require temporary clearing of vegetation from a total of about 32 acres and permanent removal of vegetation from about 0.2 acre, a low to moderate impact because disturbed areas will be revegetated.
- About 7 acres of forest will be removed for realignment areas and converted to shrub-dominated plant communities, a moderate impact because this area is managed for timber production, and is not a large stand of mature native forest.
- Impacts from road improvements are expected to be low because they would be limited to cutting back vegetation on and within existing roads, in up to 1 acre.
- Impacts from road construction will be moderate because new roads would convert approximately 5 acres of forest land to bare road surfaces; additional acreage at the sides of the road would be cleared of trees but allowed to revegetate.
- Impacts from noxious weed invasion are expected to be low because of the relatively limited area of disturbance, the dominance of native plants in much of the right-of-way, the current absence of many weed species, and the mitigation practices that will be implemented to prevent weed invasion, including revegetation of disturbed areas.
- Tensioning sites will result in low impacts because temporary clearing will be limited and partially mitigated for by revegetation of disturbed areas.

- No impacts are expected to Federally listed, proposed, or candidate rare plant species or to State listed or sensitive rare plant species on State lands within the project area because they are not known to occur in the project area, as confirmed by site visits.
- Impacts resulting from ongoing vegetation management activities would be low because they would mostly be confined to the managed right-of-way, except for danger trees, many of which were previously removed.

Wildlife. Three Federally and State listed species occur in the project area, bald eagle, spotted owl, and marbled murrelet. The potential for impacts to bull trout was investigated but bull trout are blocked from entering the project area by an impassable dam approximately 1 mile from the right-of-way. Impacts to listed species could include:

- Impacts to **bald eagles** could be low to moderate because their use of the project area is likely to be limited and no known roosting trees would be removed. The brief increase in construction-related noise could cause bald eagles to temporarily avoid active construction areas but construction would not take place during the spring and winter time periods when eagles are known to be most sensitive to disturbance.
- Impacts to **spotted owls** could be low to moderate because no large trees suitable for nesting will be removed but increased noise could cause spotted owls to temporarily avoid construction areas. The use of helicopters for construction would be timed to avoid the critical nesting and fledging period.
- Moderate impacts to **marbled murrelet** could result from noise disturbance, which would be reduced by restrictions on the time of day and year when construction can occur. The removal of some trees and limbs at the edge of three habitat areas could result in moderate impacts, from some degradation of the remaining habitat areas, but removal would take place after the nesting season so marbled murrelet individuals would not be harmed or permanently disturbed.
- Impacts to listed species could occur from some operation and maintenance activities including low noise impacts from occasional vehicle surveys of the area and moderate impacts from periodic helicopter use to check the line for problems.

In addition, as required by Section 7 of the Endangered Species Act (ESA), BPA analyzed potential impacts to listed species in a Biological Evaluation (BE), submitted to the U.S. Fish and Wildlife Service (USFWS). BPA believes that the mitigation measures identified in the EA and committed to in the MAP would be sufficient to ensure that no significant impacts occur to listed species. However, BPA will also follow any additional Terms and Conditions identified by the USFWS in its Biological Opinion for the project to ensure that impacts to listed species are no more than low to moderate.

Impacts to fish species from construction activities are expected to be low to moderate and limited to temporary disturbances from increased noise, which would not be expected to injure or kill fish and increased turbidity, which could result in some mortality. BMPs, mitigation measures, and permit conditions for instream work will minimize or eliminate the delivery of sediments into streams. Riparian vegetation will be removed along portions of a few streams to create new alignments, resulting in potential moderate impacts to fish from increased water temperature, decreased nutrients and food species, and increased turbidity. It is not expected that vegetation removal in this small area will substantially affect fish habitat but any adverse impacts will be partially mitigated by felling trees into fish-bearing creeks and replanting low-growing woody species in the Joe Creek riparian area. Similarly, impacts on fish from operation and maintenance are expected to be low to moderate. BPA consulted with the National Oceanic and Atmospheric Administration's National Marine

Fisheries Service (NOAA Fisheries) on impacts to Essential Fish Habitat (EFH) and NOAA Fisheries concurred that the mitigation measures in the EA are adequate to protect EFH.

Impacts to wildlife species, other than listed species and fish, are expected to be low to moderate and not endanger wildlife populations. Impacts could result from the following activities:

- The loss of wildlife habitat resulting from structure and road construction and ongoing maintenance will be a low impact because only a small percentage of the habitat available to wildlife in this area would be removed or disturbed.
- Increased noise from construction is expected to have a low to moderate impact on wildlife because some species would likely avoid construction sites temporarily, and noise during the breeding season could reduce the foraging effectiveness of adults or cause adults to abandon nest sites, thus leading to mortality in their young.
- During operation, impacts to birds will be low because the level of bird mortality from collisions with conductors and structures is not expected to increase, there are no known circumstances, which contribute to high levels of mortality, and the conductors are too widely spaced to cause raptor electrocution.

Water Quality. Impacts to water quality result when vegetation removal and soil disturbance lead to the deposition of sediment into streams, increasing turbidity. Impacts also result when the removal of trees exposes waterways to more solar radiation, raising water temperatures. The implementation of BMPs and a SWPP Plan (measures to reduce erosion and runoff and to stabilize disturbed areas) will reduce impacts. The following impacts to water quality could occur:

- Impacts from structure removal and construction are expected to be low to moderate because excavated soils will not be discharged to surface waters, disturbance will be minimized, fresh concrete will not enter streams, water in excavated holes will meet state water quality standards for turbidity in Class A streams before discharge to waterways, and appropriate erosion control measures will be implemented.
- Impacts from removal of riparian vegetation could result in localized and likely short-term effects, including increased water temperature and turbidity, a low to moderate impact. Impacts will be partially mitigated by replanting the Joe Creek crossing with shrubs and leaving down wood in the riparian area, if allowed by the State.
- Impacts from oil and fuel spills from construction equipment used adjacent to streams or wetlands are expected to be low because a Spill Prevention Control and Countermeasure (SPCC) Plan will address spill prevention and clean up.
- Impacts from road work are expected to be low to moderate because construction would occur during the dry season, implementation of erosion control measures would reduce the potential for erosion, and any permit conditions for instream work will be followed.
- Impacts from herbicide use in vegetation management is expected to be low to moderate because they would be applied with buffer widths specified in BPA's Vegetation Management Program (BPA 2000).
- Impacts from maintenance activities are expected to be low to moderate because implementation of BMPs will reduce the potential for erosion, and any permit conditions for instream work will be followed.

Wetlands. The project was designed to minimize or avoid wetland impacts by locating roads and structures away from wetlands whenever possible. Two portions of the transmission line were realigned to avoid wetland areas. Unavoidable wetland impacts will result in temporarily filling 0.30 acres of wetlands and permanently filling 0.018 acres of wetlands. Disturbed areas will be revegetated with native species. BPA is coordinating with local, State, and Federal agencies to

obtain required permits for any activities within wetlands. Impacts to wetlands will result from the following activities:

- Nine existing structures in wetlands will be removed, a low impact because they would be cut at ground level with no soil disturbance and lifted or dragged from the wetland.
- Beneficial impacts will result from no longer needing to maintain seven existing structures in wetlands because they will be replaced in upland sites.
- Impacts from constructing two structures in wetlands are expected to be low to moderate. Both structures would be suspension structures, which require the smallest disturbance area, approximately 25 square feet per structure. Any material excavated would be moved to an upland site, reducing impacts.
- The impact of constructing structures near wetlands will be low because impacts will be minimized by prohibiting work within buffers when possible, avoiding work while soils are wet, and by installing erosion control measures to avoid sedimentation.
- Impacts from improving existing roads are expected to be low to moderate because the deposition of fill would occur in one location where an existing ford will be replaced and the road widened, requiring only 0.017 acres of wetland fill along an existing road.
- Three temporary access roads would be constructed in wetlands, resulting in moderate impacts, from soil compaction, disturbance of vegetation, and temporary loss of wetland functions. Contractors will place rock on geotextile fabric, then remove all fill, and revegetate.
- Operation and maintenance is expected to have a low impact on wetlands. This would result from trimming or removal of tall-growing vegetation within wetlands and buffers. Maintenance of structures or roads in or adjacent to wetlands could result in minor disturbance of vegetation and soils.

Floodplains. The project was designed to avoid floodplain impacts, where possible, and to minimize unavoidable impacts. Impacts to floodplains result from soil compaction, removal of vegetation, and the deposition of fill material. Best management practices and erosion control measures will minimize impacts. Impacts to floodplains that result from the following activities will be low to moderate because they will not substantially alter floodplain qualities and functions:

- Six existing structures within or on the boundaries of floodplains will be removed and four would be rebuilt within the floodplain, requiring the deposition of approximately 100 square feet of fill.
- Road improvements at the edge of floodplains in two areas will include rocking, grading, and widening some portions of 570 feet of existing.
- Direct impacts on floodplains from routine maintenance of structures or access roads will be low because such activities would be infrequent, short term, and localized.

A Floodplain Statement of Findings is including in this FONSI, below.

Visual Quality. Some of the transmission line corridor is visible to motorists along Highway 101 and some area residents and recreational users have views of the transmission line. Construction activities and temporary lane closures along Highway 101 will result in low to moderate impacts on the visual environment, because the effect will be short term and would not result in a significant change from current conditions.

The following impacts would result from replacing the existing steel lattice structures with taller tubular steel poles:

- The impact to motorists will be low because the highway already has these views, and the project will not result in a significant change from current conditions.
- There could be moderate impacts in areas classified by the State as having high scenic value because of the greater visual sensitivity of these areas.
- For some motorists and residents, the visual experience may be improved if they believe the new single-pole structures provide less contrast than the existing lattice structures or if they prefer the appearance of the proposed structures.
- Impacts to residents would be low because most structures are moving less than 10 feet from their existing position, and where they are moving further, they would be moved farther away from the residences.
- Impacts on recreational use would be low because the views of the transmission line from recreational sites are mostly shielded by the existing landscape.

Air Quality. Given the project's rural setting, the three pollutants of potential interest are particulates, carbon monoxide, and ozone. None of the project area is within a designated non-attainment area. Impacts on air quality from construction, operation, and maintenance are expected to be low because:

- During the construction period, activities could increase dust and particulate levels, but only on a temporary basis in a localized area.
- Burning of slash piles could increase particulates, but the amount of burning would be limited because tree removal is limited.
- The operation of heavy equipment during construction will emit pollutants, but vehicle emissions would be short-term and localized.
- The operating transmission line will emit ozone and nitrogen in quantities that are generally too small to be measured or to have any adverse effect on living things.
- Maintenance activities would only require occasional vehicle use and therefore emissions would be short-term.

Socioeconomics. Only low or beneficial impacts are expected in the following areas:

- Low impacts to the availability of housing because there is adequate housing (motel space, rental housing, and RV parking) available for any construction workers that could come from out of the area to work on the project.
- During construction, the impacts on area economic activity (from payroll, related spending, and sales tax revenue), could be positive, but short term.
- During construction, low impacts on property value and salability could occur on an individual, short-term basis, but the project is not expected to cause overall long-term adverse effects on property values.
- During operation, low impacts from trespassing and vandalism because most of the corridor is remote and access roads are generally restricted by the use of locked gates.
- Unlikely, but potentially low visual impacts on low income or minority populations.
- During operation, potential long-term benefits to regional stability and economic growth by reliably meeting power demands and providing access to high-speed communications.

Cultural Resources. There are no known historical or archeological resources in the project area, based on research and the findings of several site investigations over the past year. Therefore, there are no impacts expected from this project. The existing transmission line has some historic

importance to BPA and to the local Historical Society but the structures do not have the integrity to meet the criteria to be eligible for National Register of Historic Places listing. BPA received concurrence from the State Historic Preservation Office (SHPO) on the survey methodology, the results of the surveys, and the finding that no historic properties will be affected. Eight Tribes were asked for input on the survey and they did not provide any additional information on historic sites. If any archeological material is encountered during construction, work will be halted in the vicinity of the finds and BPA would promptly notify the Washington SHPO office.

Health and Safety. During construction, the impacts on health and safety concerns, such as the risk of fire and traffic safety, is expected to be low because standard construction safety procedures would be implemented. During operation, the effects of electric and magnetic fields (EMF) would have a low impact for the following reasons:

- Peak electric and magnetic field levels are expected to be comparable but slightly less than under existing conditions.
- Because the proposed line would easily meet the BPA electric-field guidelines at the edge of the ROW, it is highly unlikely that nuisance shocks would be perceived under the line.
- A review of recent literature on long-term health effects associated with exposure to electrical fields suggests there is little evidence that exposure causes long-term health effects such as adult cancer, or adverse effects on reproduction, pregnancy, or growth and development of the embryo, and the Proposed Action of rebuilding an existing line would not significantly change existing electrical field conditions in the vicinity of the line.

Noise. During construction, moderate impacts from construction-related noise would mainly affect the residents along the right-of-way, for a limited time. During operation and maintenance, noise impacts would be low because:

- Any maintenance activities would generate noise infrequently for only a short time.
- During operation, audible noise from the conductor (the corona-generated foul weather audible noise level) would be less than that of the existing line.
- Predicted electromagnetic interference levels for the proposed 115-kV transmission line would be well below those considered unacceptable; therefore, no impacts from corona-generated interference on radio, television, or other reception are anticipated.

The Proposed Action would not violate Federal, State, or local law or requirements imposed for protection of the environment and all required permits would be obtained.

Floodplain Statement of Findings: This Floodplain Statement of Findings was prepared in accordance with 10 C.F.R. Part 1022. BPA is proposing to rebuild its existing Raymond–Cosmopolis transmission line in the existing right-of-way that crosses the 100-year floodplains of Lower Salmon Creek, the Little North River, and the North River in Grays Harbor County. A Notice of Floodplain and Wetlands Involvement was published in the Federal Register on January 14, 2003. An assessment of impacts to floodplains and wetlands is in Chapter 3 of the EA, summarized below, and Figure 3-2 in the EA is a map of the floodplains in the project area.

Impacts to floodplains will include the removal and construction of some structures and road improvements in two areas. During the design phase, efforts were made to avoid or minimize impacts to floodplains by moving structures out of, or further towards, the floodplain boundary, where possible. Several factors contributed to the difficulty of relocating some structures outside floodplains when it created long conductor spans, including the strength of the conductor, strength

and height limitations of the structures, topography of the area, the narrow width of the right-of-way, and accessibility to structure sites.

During construction, existing structures in floodplains will be removed without excavation (cut at ground level) to minimize ground disturbance. The holes augured to imbed the tubular steel structures will be less than 70 inches in diameter. No new roads will be constructed in floodplains but two portions of existing roads will be improved to access structures.

Waterway with Floodplain	Activities in Floodplain	Steps Taken to Minimize Potential Harm
Lower Salmon Creek	Structure 66 removed and replaced in floodplain	The structure will be moved closer to the floodplain boundary
	Structure 73 removed and replaced in floodplain	Structure cannot be moved out of floodplain because it would require moving it into wetland
North River	Road improvements (200 feet long) on a slope at edge of floodplain to access Structure	Cannot be moved outside floodplain, but the road is separated from the riparian area by a county road
	Structure 121 removed from floodplain boundary and replaced just outside the floodplain	Structure will be moved outside floodplain area
Little North River	Structure 136 removed and replaced at edge of floodplain	Structure will be moved outside floodplain area
	Road improvements to provide access to Structure 136	At the edge of floodplain, in existing road
	Structure 142 removed and replaced at edge of floodplain	Would create too long of a conductor span to move it outside floodplain
	Structure 143 removed and replaced outside floodplain	Structure will be moved outside floodplain area

The Proposed Action conforms to applicable State or local floodplain protection standards. BPA will allow 15 days of public review after publication of this statement of findings before implementing the Proposed Action.

Determination: Based on the information in the EA, as summarized here, BPA determines that the Proposed Action is not a major Federal action significantly affecting the quality of the human environment within the meaning of NEPA, 42 U.S.C. 4321 et seq. Therefore, an EIS will not be prepared and BPA is issuing this FONSI for the Proposed Action.

Issued in Portland, Oregon.

*/s/ Robert J. Austin for*_____ *8/22/03*
Therese B. Lamb Date
Acting Vice President
Environment, Fish and Wildlife